

Title (en)
Hematocrit measuring apparatus.

Title (de)
Hämatokrit-Messapparat.

Title (fr)
Appareil pour la mesure de l'hématocrite.

Publication
EP 0231652 A2 19870812 (EN)

Application
EP 86310092 A 19861223

Priority
US 81557686 A 19860102

Abstract (en)
The hematocrit of a volume of blood can be determined in real time without volume or flow rate limitations by sensing the diffusion of infrared light by the bloodstream. For this purpose, an infrared light beam is directed at a transparent cuvette (12) through which the blood is conveyed, and a photodetector is mounted beside the cuvette at an angle such that the intersection of the light beam and of the principal sensitivity lobe of the detector is wholly spaced from the multiple scatter zone adjacent to the light source. The hematocrit signal produced by the photodetector (40) can be corrected for the effect of oxygen saturation by providing an oxygen saturation signal, multiplying the hematocrit signal by a function of the oxygen saturation signal and using a look-up table to derive a linear true hematocrit signal. Means are also provided to compensate the detected hematocrit signal for the effects of temperature, drive current, and aging.

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Cited by
EP1529544A4; EP0467804A1; DE102006029899A1; DE102006029899B4; EP0653959A4; EP0768520A3; CN111164418A; EP3665468A4; US7648475B2; US8054452B2; US8269953B2; EP2032967B1

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